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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,243	07/25/2001	David C. Wachtel	42157/FLC/U367	6834

23363 7590 08/27/2003

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EXAMINER

CORRIELUS, JEAN M

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,243

Applicant(s)

WACHTEL, DAVID C.

Examiner

Jean M Corrielus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20, 23-42 and 45-64 is/are rejected.
- 7) ☒ Claim(s) 21, 22, 43, 44 and 65 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5&6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

1. This office action is in response to the application filed on July 25, 2001, in which claims 1-66 are pending for examination.

Drawings

2. Applicants are required to furnish the formal drawings in response this office action. No new matter may be introduced in the required drawing. Failure to timely submit a drawing will result in **ABANDONMENT** of the application.

Information Disclosure Statement

3. The information disclosure statement (IDS) filed on August 05, 2002 and March 20, 2003 complies with the provisions of M.E.P.. § 609. It has been placed in the application file. The information referred to therein has been considered as to the merits. (See attached form).

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-20, 23-42 and 45-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vlahos et al (hereinafter "Vlahos") US Patent Application Publication no. 2002/0133504 in view of Mena et al (hereinafter "Mena") Article entitled "Observer: An approach for query processing in global information systems based on Interoperation across pre-existing Ontologies".

As to claim 1, Vlahos "providing a first logical search object operable coupled via a first communication link to a data provider" user submits a query through a user interface to the Web server (col.7, [0084]); "transmitting by the first logical search object to the data provider via the communications link a search request, the search request generated by the first logical search object from the data service request" where the application server passes the query to the local information server (col.7, [0084]); and "receiving by the first logical search object from the data provider via the communication link a data set in response to the search request" as receiving by the information server a user query (col.7, [0082]). However, Vlahos does not explicitly disclose the use of providing an ontology description of a data service and generating by the first logical search object a knowledge instance from the data set using the ontology description.

On the other hand, Mena discloses the claimed "providing an ontology description of a data service" as providing the definition of the defined terms in the query by consulting the user ontology and invoking the appropriate function of the DL system (page 18, col.1, section 2.3.3; page 21, col.1, section 3.3); and "generating by the first logical search object a knowledge instance from the data set using the ontology description" as retrieving data corresponding to a

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query over a component ontology, given a query and an ontology name it returns the corresponding data stored in the repositories (page 21, col.1, section 3.3).

It would have been obvious to one of ordinary skill in the art of data processing, at the time the present invention was made to combine the teachings of the cited reference, wherein the database system provided therein (See Vlahos's fig.3A item 22a) would incorporate the use of providing an ontology description of a data service and generating by the first logical search object a knowledge instance from the data set using the ontology description, in the same conventional manner as disclosed by Mena. The motivation being they are both directed from the same field of endeavor and one of ordinary skill in the art at the time of the invention would have been motivated to incorporate the use of providing an ontology description of a data service and generating by the first logical search object a knowledge instance from the data set using the ontology description into the conventional database system of Vlahos because that would provide user query the enhanced capability of obtaining semantics preserving translations across the ontologies, thereby minimizing access to component ontologies.

As to claim 2, Vlahos discloses the claimed "wherein the first communications link is adapted for communications with a database server" as information server (col.7, [0084]).

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As to claim 3, since Vlahos discloses the use of transmitting data request using Messaging protocol (col.11, [0123] and [0029]), therefore, discloses the claimed “wherein the first communications link is adapted for communications with a FTP server” is met.

As to claim 4, Vlahos discloses the claimed “wherein the first communications link is adapted for communications with a file system” ([0123], [0125], [0175] ,[0181] and [0195]).

As to claim 5, Vlahos discloses the claimed “wherein the first communications link is adapted for communications with a web server” (col.9, [0109]).

As to claim 6, Vlahos discloses the claimed “wherein the first communications link is adapted for communications with a human data provider” (col.6, [0075]).

As to claim 7, Vlahos discloses the claimed “wherein the first communications link is adapted for communications with a communication protocol proprietary to the data provider” ([0018], [0025], [0029] and [0036]).

As to claim 8, Vlahos discloses the claimed “ ”wherein the data service request is included in a XML” ([0068], [0091] and [0103]).

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As to claim 9, Vlahos discloses the claimed “providing a first workflow operably coupled to the logical search object” ([0092]); and “transmitting by the first logical search object to the first workflow the knowledge instance” ([0092]-[0095]).

As to claim 10, Vlahos discloses the claimed “providing a second logical search object operably coupled to the first workflow, the first workflow encapsulating the ontological relationship between the first and second logical search objects” ([0019], [0044], [0048]).

As to claims 11-15, Vlahos discloses the claimed “wherein the second communications link is adapted for communications using SMTP” ([0017]); “wherein the first communications link is adapted for communications with a communication using HTTP” ([0071], [0103], [0123] and [0175]) and “wherein the first communications link is adapted for communications with a communication using RMI” ([0020], [0123], [0175], [0187] and [0188]).

As to claims 16-17, Vlahos discloses the claimed “the logical search object is specified by the first workflow” ([0092]-[0100]); and “wherein the first workflow is specified by the application server using the service request message”([0092]-[0100]).

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As to claim 18, Vlahos discloses the claimed “providing a formatter” ([0077], [0080] and [0088]); and “formatting by the formatter the data set encapsulated in the knowledge instance into a format requested by the data client”([0077], [0080] and [0088]).

As to claim 19, Vlahos discloses the claimed “providing a second workflow operably coupled to the first workflow”([0092]-[0100]).

As to claim 20, discloses the claimed “receiving by the software object from a second software object a search request message document” user submits a query through a user interface to the Web server (col.7, [0084]); “generating by the software object a data request for the data provider from the search request message document” ([0082], [0084]); “transmitting by the software object to the data provider the data request via the communications link” where the application server passes the query to the local information server (col.7, [0084]); and “receiving by the software object from the data provider a data set via the communications link” as receiving by the information server a user query (col.7, [0082]).

However, Vlahos does not explicitly disclose the use of generating by the software object a semantic object from the data set.

On the other hand, Mena discloses the claimed “generating by the software object a semantic object from the data set” by replacing each concept and role in the user query by their corresponding constraints in the component ontologies (section 3.1.1).

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It would have been obvious to one of ordinary skill in the art of data processing, at the time the present invention was made to combine the teachings of the cited reference, wherein the database system provided therein (See Vlahos's fig.3A item 22a) would incorporate the use of generating by the software object a semantic object from the data set, in the same conventional manner as disclosed by Mena. The motivation being they are both directed from the same field of endeavor and one of ordinary skill in the art at the time of the invention would have been motivated to incorporate the use of generating by the software object a semantic object from the data set into the conventional database system of Vlahos because that would provide user query the enhanced capability of obtaining semantics preserving translations across the ontologies, thereby minimizing access to component ontologies.

As to claims 23-41 and 45-63, the limitations of claims 23-41 and 45-63 have been mentioned in the rejection of claim 1-19 above. In addition, discloses the claimed "a processor" ([0118]); "a memory operably coupled to the processor and having program instructions stored therein, the processor being instructions "([0118]).

As to claims 42 and 64, the limitations of claims 42 and 64 have been mentioned in the rejection of claim 20 above. In addition, discloses the claimed " a processor"([0118]); "a memory operably coupled to the processor and having program instructions stored therein, the processor being instructions "([0118]).

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Allowable Subject Matter

6. Claims 21-22, 43-44 and 65-66 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or early communication from the Examiner should be directed to Jean Corrielus whose telephone number is (703) 306-3035. The Examiner can normally be reached on the weekdays from 7:00am to 5:30pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, *Kim Vu*, can be reached on (703)305-9343.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C. 20231

or faxed to:

(703) 746-7239, (for formal communications intended for entry)

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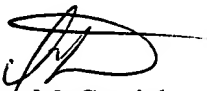
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Or:

(703)746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to **Crystal Park II, 2021 Crystal Drive,**

Arlington. VA., Sixth Floor (Receptionist).

A handwritten signature in black ink, appearing to read 'J. Corrielus', with a stylized flourish at the end.

Jean M. Corrielus

Patent Examiner

August 22, 2003